EVALUATION OF WOUND HEALING ACTIVITY OF ETHANOLIC AND AQUEOUS EXTRACTS OF PLANTS ON RATS

PRISALLESTER TRENNAH BTE TAISIN

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APPROVAL SHEET

This Final Year Project Report entitled "**Evaluation of wound healing activity of ethanolic and aqueous extracts of plants on rats**" was submitted by Prisallester Trennah Taisin, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by

Dr. Norizan Ahmat @ Abdul Hamid
Supervisor
B. Sc. (Hons.) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Wan Zuraidah Wan MD. Zain
Co – Supervisor
Faculty of Applied Sciences
Universiti Teknologi MARA
26400 Jengka
Pahang

Sabrina M. Yahaya
Project Coordinator
B. Sc. (Hons.) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Dr Yusairee Mohd.
Head of Programme
B. Sc. (Hons.) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Date: 22/5/09

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ABSTRACT

This study was conducted to evaluate aqueous and ethanolic extracts of *Aloe barbadensis*, *Centella asiatica*, *Psidium guajava* leaves, *Pandanus amaryllifolius*, *Lantana camara* and *Andrographis paniculata* for wound healing activities. Wound healing activities of all selected plants were determined using the excision wound model. The wound healing parameters that were evaluated in this study are wound contraction and epithelialization time. Anti-inflammatory, anti-oxidant and anti-microbial properties are responsible in wound healing. All selected plants possess these properties, thus they have potential in wound healing. From this study, it is found that aqueous extract of *Aloe barbadensis* is the most effective in wound healing with 92.1% (17 days epithelialzation time) of wound contraction followed by ethanolic extract of *Aloe barbadensis*, aqueous extract of *Andrographis paniculata*, ethanolic extract of *Andrographis paniculata*, aqueous extract of *Centella asiatica*, ethanolic extract of *Centella asiatica*, aqueous extract of *Lantana camara*, ethanolic extract of *Lantana camara*, ethanolic extract of *Pandanus amaryllifolius*, aqueous extract of *Psidium guajava* leaves and lastly ethanolic extract of *Psidium guajava* leaves with percentage of wound contraction 89.5% (17 days epithelialzation time), 84.0% (18 days epithelialzation time), 80.9% (18 days epithelialzation time) , 80.6% (18 days epithelialzation time), 77.7% (19 days epithelialzation time), 76.5% (19 days epithelialzation time), 74.3% (20 days epithelialzation time), 71.9% (20 days epithelialzation time), 69.3% (21 days epithelialzation time), 64.2% (22 days epithelialzation time) and 58.3% (22 days epithelialzation time) respectively. This gives a clear picture that aqueous extracts of all selected plants are better in wound healing compared to ethanolic extracts.